

# Beam Power Tube

CERMOLOX® RUGGEDIZED TYPE

FORCED-AIR COOLED

INTEGRAL RADIATOR

40 WATTS CW POWER OUTPUT AT 1215 Mc/s

MATRIX-TYPE, OXIDE-COATED, UNIPOTENTIAL CATHODE

For Use in Compact Aircraft, Mobile, and Stationary Equipment

The 8596 is the same as the 7457 except for the following items:

## MECHANICAL

Maximum Overall Length . . . . . 2.036 in

Maximum Diameter . . . . . 1.327 in

## THERMAL

Plate, Grid No.2, Grid No.1, Cathode, and

Heater Temperature . . . . . 250 max °C

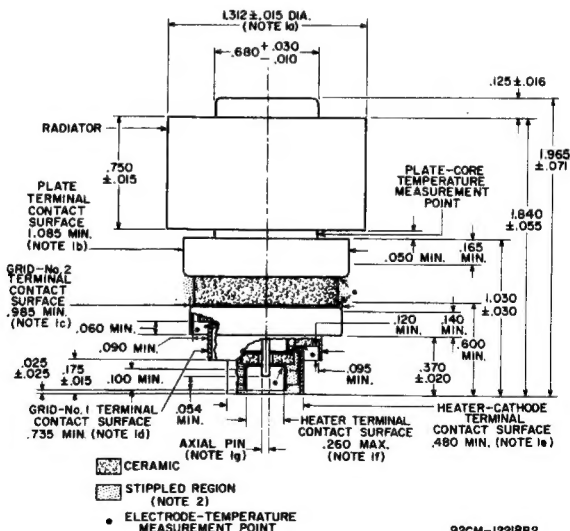
Plate-Core Temperature . . . . . 250 max °C

## CHARACTERISTICS RANGE VALUES

	Note	Min	Max	
Zero Bias Plate Current . . . . .	1,7	390	-	mA

NOTE 7: With dc plate volts = 300, dc grid-No.2 volts = 150, dc grid No.1 volts = 0.

## DIMENSIONAL OUTLINE



DIMENSIONS IN INCHES

For notes, see next page.

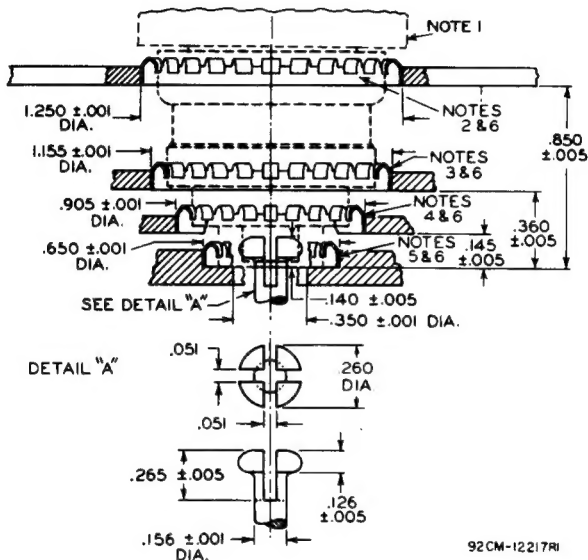


**NOTE 1:** The following diametrical space requirements accommodate the concentricity of the cylindrical surfaces of the radiator band, axial pin, and each electrode terminal:

- |                                    |   |
|------------------------------------|---|
| a. Radiator Band - 1.376 inch      | e. Heater-Cathode Terminal - 0.519 inch |
| b. Plate Terminal - 1.119 inch     | f. Heater Terminal - 0.238 inch         |
| c. Grid-No.2 Terminal - 1.019 inch | g. Axial Pin - 0.071 inch               |
| d. Grid-No.1 Terminal - 0.764 inch |   |

**NOTE 2:** Keep all stippled regions clear. Do not allow contacts or circuit components to protrude into these annular volumes.

**PREFERRED MOUNTING ARRANGEMENT**  
and Layout of Associated Contacts



DIMENSIONS IN INCHES

**NOTE 1:** If a clamp is used, it must be adjustable in a plane normal to the major tube axis to compensate for variations in concentricity between the radiator cylinder and the contact terminals.

**NOTE 2:** Contact ring No. 97-252 or finger stock No. 97-380.

**NOTE 3:** Contact ring No. 97-253 or finger stock No. 97-380.

**NOTE 4:** Contact ring No. 97-254 or finger stock No. 97-380.

**NOTE 5:** Contact ring No. 97-255 or finger stock No. 97-380.

**NOTE 6:** The specified contact ring of preformed finger stock and finger stock No. 97-380 provide adequate electrical contact, but the finger stock No. 97-380 is less susceptible to breakage than the specified contact ring. Both types are made by instruments specialties Co., Little Falls, N. J.